COMPOUNDS AND METHODS FOR TREATING AND PREVENTING EXERCISE-INDUCED CARDIAC ARRHYTHMIAS

ABSTRACT OF THE DISCLOSURE

[0097] The present invention provides a method for limiting or preventing a decrease in the level of RyR2-bound FKBP12.6 in a subject, a method for treating or preventing exercise-induced cardiac arrhythmia in a subject, and a method for preventing exercise-induced sudden cardiac death in a subject. Also provided are uses of JTV-519 in these methods. The present invention further provides methods for identifying agents for use in preventing exercise-induced sudden cardiac death, as well as agents identified by such methods. Also provided are methods for preventing exercise-induced sudden cardiac death by administering these agents. Additionally, the present invention provides methods for synthesizing JTV-519, radio-labeled JTV-519, and 1,4-benzothiazepine intermediates and derivatives.